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SCIENCE

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MSS. intended for publication and books, etc., intended for review should be sent to Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

THE DISTANCES OF THE HEAVENLY BODIES¹

A YEAR ago our retiring president took the members of the society into his confidence as follows:

Cognizant of the fact that my election to the presidency of the Philosophical Society a year ago obligated me to give an address of some sort one year later, I confidently waited for the inspiration that I felt would suggest a fitting subject for the occasion. The expected inspiration did not, however, materialize.

Undoubtedly because of that fact, and out of the goodness of his heart, towards the close of his address he turned to the present speaker, then presiding, and said:

I have said nothing whatever about the determination of the distances between the planets nor of the units used by astronomers in reckoning distances of the stars. . . . They form, so to speak, other chapters of the subject which I shall leave to some future ex-president of our society.

This call, I suppose, was intended to take the place of an inspiration, and, wherever I have gone during the past twelve months the call has ever been ringing in my ears. The subject of the evening is presented therefore not as a matter of choice, but from compulsion.

Before any attempt was made by the ancients to determine the distance from the earth of any celestial body, we find them arranging these bodies in order of distance very much as we know them to-day, assuming that the more rapid the motion of a body among the stars the less its distance from the earth; the stars, that were supposed to have no relative motions, were assumed to be the most distant objects.

¹ Address of the president of the Philosophical Society of Washington, March 4, 1916.